Long-term variations in the Extreme-UV corona: the EIT/SOHO perspective

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Since the start of the SOHO mission, EIT offered a global view of the extreme ultraviolet corona constinuously over the whole rising phase of the solar activity cycle. Such a long-duration data serie is unprecedented. We present here the current results of an ongoing investigation of the entire EIT data set. In this process, numerous classes of magnetic regions of all sizes (active regions, coronal holes, bright points, plumes, transition region network, filaments) as well as many different classes of dynamic events (CME's, flares, jets, blinkers, macrospicules) will be identified in EIT images made in its four bandpasses. The changes in the class properties (location, size, area, topology, lifetime, integrated flux) or in the relationship between different object classes can then be monitored over the fast rise of magnetic activity towards the current maximum. We describe here the image processing techniques developed for this search as well as early results.